

COMMENTARY

Scripts, Agents, and Interpretations: Delving Into the Valence Biases of Mental Time Travel

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As reviewed in Liu and Szpunar (2023), psychologists have recently explored the close connection between remembering the past and imagining the future. In the last few years, they have expanded their interest beyond personal “mental time travel, MTT” (Schacter et al., 2017; Szpunar, 2010; Tulving, 1985) to collective “MTT” (Hirst et al., 2018; Merck et al., 2016; Szpunar & Szpunar, 2016; Topçu & Hirst, 2022). To a large degree, they have sought to understand how personal and collective MTT might differ—at least when the collectivity is the nation. This difference is most apparent when considering the valence of remembered past or imagined future events.

Initially, Shrikanth et al. (2018) underscored that people imagined the collective future negatively while imagining the personal future positively. In a subsequent research, Shrikanth and Szpunar (2021) found that a similar dissociation was also present for past events, with people exhibiting a negativity bias for the collective past and a positivity bias for the personal past. Recently, several studies have explored past and future collective events in conjunction. These reveal mixed patterns, with some finding a trajectory of progress (Hacıbektaşoğlu et al., 2022; Topçu & Hirst, 2020), while others find a trajectory of decline (Ionescu et al., 2022; Yamashiro & Roediger, 2019). In their article, Liu and Szpunar (2023) largely focused on valence biases rather than trajectories over time. They insightfully explored several factors to account for the empirical results. Here, we discuss one explanation Liu and Szpunar offered—the role of scripts—and then examine two additional considerations not featured in the article.

Scripts

Liu and Szpunar (2023) attributed the positivity bias for personal memories and prospectations and the contrasting negativity bias for national counterparts actions in part to the scripts culture can provide.

The work on personal life scripts is well developed (Berntsen & Rubin, 2004). When asked to list events that might occur in a “typical” life, people will mention events such as marriage or having children. These are more likely to be positive than negative (Rubin et al., 2009). Consequently, if these scripts guide remembering the past and imagining the future, at least in part, as many researchers claim (Berntsen & Bohn, 2010), then it is not surprising that a positivity bias emerges. Liu and Szpunar applied the same reasoning to national memory and prospectation but now averred that the extent scripts involve negative events and hence lead to a negativity bias.

We would urge caution in making these claims, in that the connection between personal life scripts and what might be viewed as national life scripts is more complex than Liu and Szpunar (2023) outlined. Personal life scripts tend to capture life linearly, with one phase of life following predictably from the next—at least for the idealized or typical life (but see Brockmeier, 2000). There is birth, childhood, college, marriage, children—usually in that order. Moreover, there is a conventionally accepted beginning and end to the story—birth and death, for instance. Of course, this is not the only way to narrate a personal history. For instance, one could see your life as a recapitulation of your ancestors’ lives, but especially in WEIRD settings (and Berntsen & Rubin, 2004, might claim, in the globalized world), this linearity and these temporal boundaries are “typical” ways of capturing a “typical” life. In any event, linearity is built into most discussions of personal life scripts.

In contrast, the pattern for nations is often viewed as cyclical. It might not even be appropriate to say that there is a national script, in that scripts are usually thought of as ordered sequences of events (Abelson, 1981). Consider the endless repetition of wars and political conflicts that capture most national histories. When asked to remember the history of the world or a specific nation, wars and political conflicts dominate (Liu & Hilton, 2005). When people list events that might occur in a “typical” country’s history, again, what is most frequently mentioned are wars and political conflicts (Cyr & Hirst, 2019).

And national history differs from personal history not just in the seemingly endless repetition of certain types of events but also with regard to beginnings and endings. Unlike their personal life story, people often disagree on how to begin their nation’s story (Zerubavel, 2003). Should one begin to tell the American story with the first colonialists, the lives of Indigenous peoples, or the Battle of Lexington and Concord? Should the Indian story begin with the earliest

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Maharajas, the occupation by Britain, or the declaration of India as an independent state? And, of course, the end of a nation is much less well specified than the end of a personal life. People may not believe a nation is eternal, but they certainly see its future in terms of millennia, not years.

One consequence of this difference is that one can more easily specify events that differ in kind when dealing with the personal future than when articulating the collective future. A “typical” teenager can expect to marry, get a job, have children, and eventually retire. Each of these events will entail situations, activities, and attitudes substantially different from what the teenager previously experienced. In this regard, past is not prologue.

In contrast, as we noted, there is no well-specified sequence of distinctive events that the history of even a typical nation follows. When it comes to the nation’s story, the future is more likely to be more of the same rather than something entirely different. Wars figured in past, and they will in the future. To be sure, each war is different, but unless one is dealing with the immediate future, all one can be assured of is that past is prologue. Nations seem to return to where they began, as [Vico \(1725/2020\)](#) emphasized with his “spiral of history.” There are, of course, often Whiggish grand theories of history, in which history is viewed as moving toward some usually desirable endpoint ([Butterfield, 1931/1965](#); see also [Paez et al., 2016](#)). Although not necessarily in the Whig tradition, [Fukuyama’s \(2006\)](#) declaration of the “end of history” built on the linearity of Hegel’s and Marx’s views of history. These grand histories do not deny the repetition of events, such as war, as history moves forward, they only offer grand trajectories.

The repetitive nature of history does not mean, of course, that there are no national narrative schematic templates, as [Wertsch \(2002\)](#) has pointed out. These, however, usually describe how events unfold within a cyclic historical period rather than chart a path for a nation over its entire history. One might even say, in making the effort to describe how events unfold within one of these periods, the assumption is that national history is cyclical, with the narrative schematic templates providing a framework for events embedded within a cycle.

What is at stake in distinguishing these two types of temporal patterns? It is possible that because of the linearity of personal life scripts, imagining the personal future may be less dependent on how one remembers the past, whereas the cyclical nature of national history ensures a tighter connection between remembering the collective past and imagining the collective future. Inasmuch as each “slot” in a personal life script constitutes something “entirely new,” it may be difficult to, for instance, imagine the way one’s marriage will unfold from one’s experience in college. To be sure, there are repetitions—multiple boyfriends and multiple jobs—but much of what one anticipates unfolding in one’s life is not a repetition but a new phase separating the past from the future.

The same is not the case when imagining a nation’s future. To be sure, each war has its particularity; nevertheless, each new war is not new in the sense that something like it was never experienced before. Indeed, as the theorizing about narrative schematic templates indicates, each new cycle will proceed in a predictable fashion. Our image of our nation’s future often assumes that more of the same will continue to unfold. Few in the Middle Ages would have anticipated the nonfeudal, capitalistic, nation-centered present. Rather, they were likely to see the future as variations on the themes established in the past and observable in the present. To be sure,

there were and are attempts to imagine an “ideal,” “utopian” word, as [More \(2015\)](#) did in 1551. However, these efforts are more social critique than prognostications of what will be ([Skinner, 1978](#)).

These perhaps too Black-and-White considerations about temporal structure might buy some purchase on the positivity of personal MTT and the negativity of national MTT. Why are the events featured in a personal life script more positive than negative (why, for instance, mention marriage over divorce?). Similarly, why is it wars and political conflicts that make up the cycle of national history (instead of triumphs over evil)?

With respect to personal pasts and futures, it is not surprising that the scripts people have about personal life are largely positive. There is a linear course to a narrative life script because there is a linear course to biological development. Personal life scripts essentially capture biological development, from a predictable beginning—“the infant, mewling and puking in his nurse’s arms”—to a predictable ending—“sans teeth, sans eyes, sans taste, sans everything.” Why wouldn’t a culture, or even an individual, want a personal life story to be largely populated with positive events? Would they really want to imagine an unrelentingly negative life, in which each new challenge is met with disaster rather than success? Of course, it is easy to conceive of a dystopic world in which the “typical” life is a series of one unbearable event after another. Such a life, however, is usually conceived of as “not worth living.” It would be antithetical to everything we know about human nature—which motivates us to protect and enhance the self ([Skowronski, 2011](#)). One wants the typical life to be self-enhancing, not self-destructive. Once people have a positively oriented life script in hand, it is not surprising that they use it to guide their description of their own life—both its past and its future.

As to nations, as we indicated, the past is prelude to the future. People may remember a nation’s past mainly in terms of wars and political conflicts because it is through wars and political conflicts that states are formed and maintained, a point [Liu and Szpunar \(2023\)](#) perspicaciously made when they cited [Tilly’s \(1975\)](#) trenchant observation that “the state made war, and the war made the state.” And in the absence of something similar to a personal life script, which consists of a sequence of stages each markedly different from the last, it is not surprising that people have only a past of wars and political conflict to populate the future. To be sure, there may be ways to describe the state positively (for instance, its struggle toward justice), but inasmuch as the state must often rally its people to war to either protect or reconfigure itself, it serves the state’s purpose to make such efforts central to its storytelling.

The role of scripts, then, may need to be more carefully articulated when considering national MTT. [Liu and Szpunar \(2023\)](#) correctly underscored the role personal life scripts play in guiding the remembering of past personal events and imagining personal futures, as well as articulating the manner by which these scripts might account for the positivity of personal MTT. However, it is hard to see how the notion of scripts bears similarly on national MTT. There is no linear sequential pattern of events, which the concept of script assumes. Nations do not move systematically from one stage of development to another. Rather, in many instances, the nation’s future largely recapitulates its past, and inasmuch as the dynamics of state formations often involve war and political conflict, it might be expected that the future will as well.

Agency

Much of the above discussion—and much of what is contained within Liu and Szpunar (2023)—treats the individual or the nation as agentless. One simply follows the cultural life script, and nations simply flounder from one war or political conflict to the next. But to a greater or lesser degree, people can feel that they have control of their lives and, through their actions, can shape their future. They can similarly feel that a nation has acted in ways that influence how the past unfolded and can similarly mold the future. In other words, the presence of an agent can provide connective tissue between past, present, and future. It is what can potentially control the mental time machine. Despite its putative importance, Liu and Szpunar do not mention agency in their discussion of the relation between remembering the past and imagining the future, but one might expect it to play a substantial role. Marriage occurs because people act in a way that makes it happen, and nations go to war or seek peace because they make them happen.

Agency, of course, can take various forms. Topçu and Hirst (2020) listed several possibilities: self-agency, other agency, and group agency. In one study, they undertook, they asked participants to remember 15 events from their nation's past and imagine 15 events from their nation's future and then, among other things, rate their events' emotional valence and intensity as well as the extent to which the event was caused or might be caused by circumstance, one's self, others, or "America as a nation." Interestingly, they did not find a strong negativity bias, with only about half of the past events and 39% of the future events rated as negatively valenced (in Study 2). But more to the point of the present discussion, there was a significant association between the ratings of agency governing past events and the ratings of agency governing future events (between .5 and .6, depending on the type of agency), which is what one would expect if the presence of an agency allows the past to be prelude to the future. In addition, participants imagined themselves and their nation to have a greater impact on the nation's future than on the nation's past. Finally, and perhaps most critically, the more participants believed that a past event was caused by America as a nation, the more they imagined the future in positive terms. The same was true for the self but to a lesser extent. That is, participants also believed that the more they had a role in causing an event to occur in the past, the more they believed that they could cause positive events to occur in their nation's future. In a related study, participants perceived greater agency on the part of their nations when they view the future in positive terms (Topçu & Hirst, 2023). Interestingly, Mert et al. (2022) have suggested that there may be cultural differences in the extent to which people attribute more agency to their country. They found that Americans attributed more agency to their country for future national events than did Chinese or Turks, yet it was the Chinese rather than Americans or Turks who viewed the national future most positively. The difference may reflect general cultural biases in attributing agency, and in the different agents, people consider when engaging in national MTT, rather than the absence of an association between perceived agency and positivity. What makes the findings of Topçu and Hirst interesting is that they suggest that if people believe that they have more control over their personal lives—past and future—than the nation or other agents like the government have over the nation's past and future, then agency might be an important factor to consider when explaining the different valence attributions that engaged Liu and Szpunar.

Assessing Valence

Finally, we turn to the issue of identifying an event as positive or negative. How do participants or coders determine whether a national or personal event is positive or negative? Is it reasonable to take their word for it? Most of the experiments discussed in Liu and Szpunar (2023) involve a simplified classification scheme, with events being classified as either positive or negative and with levels of intensity assigned by participants. The difficulty with this procedure is that the events mentioned in collective MTT studies usually refer to something that unfolded over a substantial period of time. Consider the frequently mentioned World War 2 (WWII). It lasted 6 years. It consisted of many triumphs as well as many defeats, that is, a mix of positive and negative episodes. When Abel et al. (2019) asked participants to list the 10 most important events of WWII, participants mostly listed battles, but critically, the battles they listed were ones that many consider major steps in ending the war, not those that involved Allies' defeats. Are these decisive battles positive or negative? Would one rate D-Day positive or negative? Does one average together the positive and negative events to get an overall valence rating for WWII? And who is doing the ratings? Those who lived through WWII tend to view the bombing of Hiroshima as positive, whereas those who were born after the war view it as negative (Zaromb et al., 2014).

The difficulty in asking participants to list positive/negative events or to evaluate the valence of an event is that it does not probe deeply into the meaning participants assign to the event. One possible criterion for classifying an event as positive or negative is whether the world would be better off without the event ever happening. We might not want to do without the civil rights movement, but we could generally do without wars. But while this straightforward assertion seems plausible, it is also ahistorical. Many of the national events the present authors can imagine as occurring in the near future—a war with North Korea or the bombing of nuclear facilities in Iran—would no doubt be classified as negative, but in each case, one could put a positive spin on it. Indeed, those in favor of the Iran bombing would do just that by building on history and the nature of the current situation to argue that a bombing would yield a positive outcome.

We are only offering here a cautionary note, not critique. The contrast observed to date between personal and national MTT is intriguing, but a better understanding of the meaning people give to the events they remember and imagine and the way they place them into a larger historical framework is needed.

Concluding Remarks

Liu and Szpunar (2023) offered many more explanations of the valence effect. We have commented on one explanation they discussed and two of our own. We have explored the relation between the kinds of scripts or schemata that might underlie personal and collective future thinking, as well as the role of agency in connecting what one remembers with what one might imagine about the future and the problems faced when classifying the valence of an event. Our discussion does not undermine, indeed, it underscores, a central claim of Liu and Szpunar: Although both personal and collective MTT are similar in that they are constructive processes, they differ when it comes to the way the constructive process unfolds. We add to this claim by emphasizing differences in

the script and schemata that might guide these constructive processes, the different forms of agency that connect the past to the future, and the need to consider interpretation more seriously.

In emphasizing these differences, we are underscoring, as Liu and Szpunar also do, how little we know about the nature of personal and collective mental time. The valence differences Liu and Szpunar underscore are signs that there is much that lies below the surface. Clearly, psychologists need to get busy and start mining the rich gems hidden underground.

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